

Work Order ID 61075

August 5, 2010 11:02:48 AM



Page 1

Item ID: D212-664-101

Accept



Setup Start



Revision ID:

Stop



Item Name: Crosstube Fwd

Start Date: 8/05/10 Start Qty: 1.00



Cust Item ID:

Required Date: 8/20/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

M

Date: 10-5-05

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D212-664-141

Rev D

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels as per PPP D212-664-101 CHG003

5 10/05/10

for CL 10/18/18

110

0.00



Pick Kit
Packaging

Packaging

Memo

0.00

Packaging

(IX) MB 10-08-10

120

0.00



BENDING MACHINE - CROSSTUBES

CNC Bend 2

Memo

0.00

CNC Alpha 160 Bender

Bend tube as per Dwg D212-664-141 using CNC bender program 212-fw and Folio D212-664-101

(IX) MB 10-08-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 QC Quality Control	QC15- Crosstube Dimensional Check Memo	0.00 0.00	810/08/11			8			
140 Crosstubes Crosstubes	Crosstubes Memo 1-Drill pilot holes in tube as per Dwg D212-664-141 using drill Jig DT8548 & DT8549,using drill table DT8577,set-up towers in hole #7 as per QSI 10 2-Ream hole to finish size in tube as per Dwg D212-664-141 using drill Jig DT8548 & DT8549.Check dimensions between holes, both sides on both cuffs, to ensure alignment with saddle holes. 3-Scribe part # and batch # using vibrating stylus as per Dwg D212-664-141 4-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D212-664-141	0.00 0.00	810/08/11			7			

AWM
10-08-11
NS
10-08-11

W/O:		WORK ORDER CHANGES					
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August 5, 2010 11:02:48 AM



Accept

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Stop

[illegible]**Cust Item ID:**

1111

Customer:

Reference:

Run Start



Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

**Insp.
Stamp**

0.00



HandFXtube

Memo

0.00

Chemical Conversion Coat within 24 hours of bending and drilling

0.00



QC

Memo

0.00

Quality Control

0.00



Outsource2

Memo

0.00

Liquid Penetrant Inspection as per QSI 038
Issue P/O: 12 394
LPI as per ASTM 1417 Level 2
Attach copy of NDT results to work order

AWM 10-08-11

11 _____

CZ 10/8/12 ①

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 	Receive & Inspect for Damage & Mat'l Certs Packaging	0.00							
	Memo	0.00							
	Packaging								
	Ensure copy of NDT results attached to work order.								
190 	QC5- Inspect part completeness to step on W/O	0.00							
	Memo	0.00							
	Quality Control								
	Inspect for damage & ensure results are as per Dwg D212-664-141								

CZ 10/8/12 ①

JI 10-08-16

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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200

Spray Painting per QSI005 4.2
SprayPaint

0.00



SprayPaint

Memo

0.00

Spray Painting

1-Prime inside and outside crosstube as per QSI 005 4.2
2-Paint outside crosstube with White Imron as per QSI 005 4.2

PRIME:

Start Time: 10:00

Finish Time: 11:00

PAINT:

Start Time: 3:00

Finish Time: 4:00

25 10-08-16

210

QC14- Inspect Spray Paint

0.00



QC

Memo

0.00

Quality Control

Then, Wrap in plastic bag to protect from scratches

W 10 08 17 11

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

220

0.00



Crosstubes

Crosstubes

Memo

0.00

Crosstubes

1- Lightly scuff the bonded area using a 320 grit sand paper and clean the area with 41058 wash 'n' wipe
2-Install supports with magnobond as per OSI 015 Adhere for for 12 Hrs
A/R 6398 Magnobond Batch: 114158

RT 10-08-18

230

0.00



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

1 10-08-18

240

0.00



Packaging

Pick Kit

Memo

0.00

Packaging

10/8/18 SP

W/O:		WORK ORDER CHANGES					
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Start Date: 8/05/10 Start Qty: 1.00



Cust Item ID:

Required Date: 8/20/10 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____



Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250 QC Quality Control	QC4- 100% Inspect kits for completeness Memo	0.00 0.00		8/10/08/19					Pho →
260 Packaging Packaging	Packaging Memo Identify and pack for shipping as per PPP D212-664-101	0.00 0.00		Rev E			10/8/19sf		
270 QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00						10/08/23sf	 mf 10-8-19

Dart Aerospace Ltd

W/O: 61075		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/28/19	# 100	Person. change Missing A1760 JD616 From w/b ADD A1760 JD616 B* <u>M114988</u> Qty x 16 per kit 8 <u>M151145 D06634</u>		10/28/19			S 10/28/19
	to 100	up Date w/b + Bom		10/28/19			S 10/28/19

Part No: D212-664-101 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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NOTE: Date & initial all entries

Picklist Print

August 5, 2010 11:02:52 AM

Page 1

Work Order ID: 61075



Parent Item: D212-664-101



Parent Item Name: Crosstube Fwd

Start Date: 8/05/10

Required Date: 8/20/10

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:E 04.02.16 Reformat KJ/DS
IPP Rev:F 06-03-29 Remove Coments on Pick List JLM
IPP Rev:G 07-04-30 As per Rev C JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D212-664-101TRN		Manufactured	No			110	Each	2.0000	1	1			
Crosstube Turning Detail													

Location Loc Qty Loc Code

LG	2	
60527	1	
60528	1	

D3595-063-450		Manufactured	No			230	Each	38.5390	4	4.210526			
RUBBER CUSHION													

Location Loc Qty Loc Code

LG	38.53897368	
53775	5.97897368	
58161	3.56	
59580	29	

IX

ET 10-08-12

xy

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

August 5, 2010 11:02:52 AM

Work Order ID: 61075

Parent Item: D212-664-101

Parent Item Name: Crosstube Fwd

Start Date: 8/05/10

Required Date: 8/20/10

Start Qty: 1.00

Required Qty: 1.00

MS21920-25

Purchased

No

220

Each

123.0000

4

4



Clamp(per MIL-DTL-8783C)



RT 10-08-17

Location

Loc Qty

Loc Code

LG

80

113281

0

114759

30

114901

25

115278

25

ST451

43

113281

5

113282

18

113744

1

114141

19

x4

D2893-1

Manufactured

No

220

Each

28.0000

2

2



2.75 Support



RT 10-08-17

Location

Loc Qty

Loc Code

LG

28

53340

2

53774

6

56354

20

x2

D3428-1

Manufactured

No

240

Each

13.0000

1

1



Placard



10/8/15

Location

Loc Qty

Loc Code

ST056

13

60133

3

60484

10

1

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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NOTE: Date & initial all entries

Picklist Print

August 5, 2010 11:02:52 AM

Work Order ID: 61075

Parent Item: D212-664-101

Parent Item Name: Crosstube Fwd

Start Date: 8/05/10

Required Date: 8/20/10

Start Qty: 1.00

Required Qty: 1.00

AN6-35A

Purchased

No

240

Each

71.0000

4

4



BOLT



10/8/18 SP

Location

Loc Qty

Loc Code

ST343

71

115204

71

AN6-36A

Purchased

No

240

Each

80.0000

4

4



Bolt



10/8/18 SP

Location

Loc Qty

Loc Code

ST343

80

114330

30

115016

50

MS21042L6

Purchased

No

240

Each

362.0000

6

6



Nut



10/8/18 SP

Location

Loc Qty

Loc Code

ST300

362

111578

4

114495

158

115300

200

6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

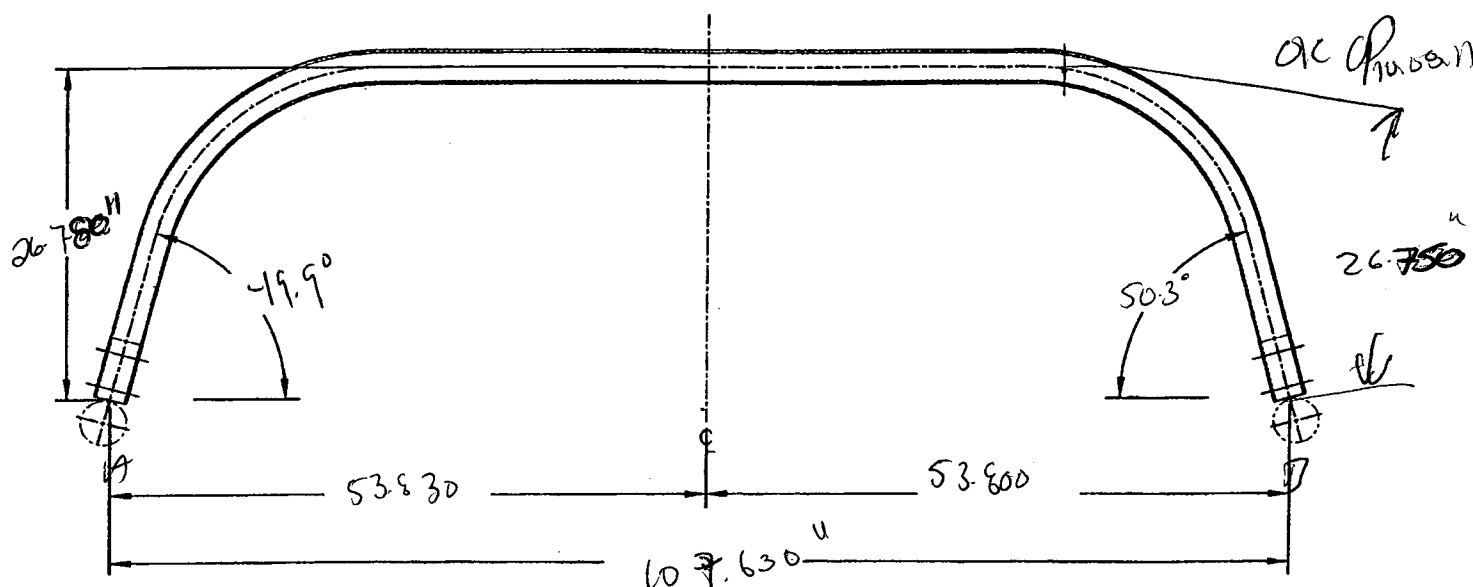
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NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	41075
Description: Crosstube High Fwd (205/212/412)	Part Number:	D212-664-101
Inspection Dwg: D212-664-141	Rev: D	Page 1 of 1

Required Dimension	Min	Max
Height	26.79	27.05
1/2 Span	53.59	53.85
Angle	49	52
Total Span	107.18	107.7



Comments
Height is low, OK 10.08.11

QC15 Inspection	<i>[Signature]</i>	<i>[Signature]</i>
Date	10/08/11	10/08/11

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	07.05.31	Dimensions updated per Dwg Rev C	KJ/JM	
C	10.04.01	Dwg Rev updated	KJ <i>[Signature]</i>	<i>[Signature]</i>

W/O:		WORK ORDER CHANGES					
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8 7 6 5 4 3 2 1



Item	Qty -141	Qty -141B	Part Number	Description
1	X		D212-664-141	CROSSTUBE ASSEMBLY (205/212/412 HIGH FWD)
2		X	D212-664-141B	CROSSTUBE ASSEMBLY (214 HIGH FWD)
3	1	1	D6005-128	CROSSTUBE
4	2	2	D2893-1	SUPPORT
5	4	4	D3595-063-450	RUBBER CUSHION
6	4	4	MS21920-25	CLAMP (OR MS21920-26)
7	A/R	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6005-128
FINISHED LENGTH = 126.514±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D212-664-XXX" AND BATCH NUMBER ON INSIDE OF CUFF
USING VIBRATING STYLUS
- 7) WEIGHT: D212-664-141 = 33.6 lbs (PER IIN-D212-664)
D212-664-141B = 33.6 lbs (PER IIN-D212-664)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALLY. TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 3 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS
6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2893-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF
D2893-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER
INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-25 CLAMPS (OR -26) WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2893-1
SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE
SUPPORT.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE
SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR
DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND
MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT
HAS NOT BOTTOMED-OUT AFTER TORQUING.

wlb 61075
B810-8-05

RELEASED
2009-10-29

D	REFORMAT/REVISE GENERAL NOTES/PART LIST; REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS; ADD -141B (ZN B4-2, D4-2); REMOVED REF & ADD TOLERANCES (ZN B4-3, C6-3, C8-3 & B6-3); RELOCATED FLAG #6 PER PAR 08-046 (ZN A5-3); MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4	RF	09.09.30
C	REMOVE -851 ABRASION STRIP; ADD MAGNOBOND 6398, CUSHION, REVERSE CLAMPS	PH	07.03.08
B	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	PH	05.02.04
A	NEW ISSUE	PH	00.12.12
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	PH	DRAWING NO.	REV. D
MFG. APPR.	PH	D212-664-141	SHEET 1 OF 4
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	XTUBE ASS'Y (205/212/412 HI FWD)	NTS
DATE	09.09.30	COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

8 7 6 5 4 3 2 1

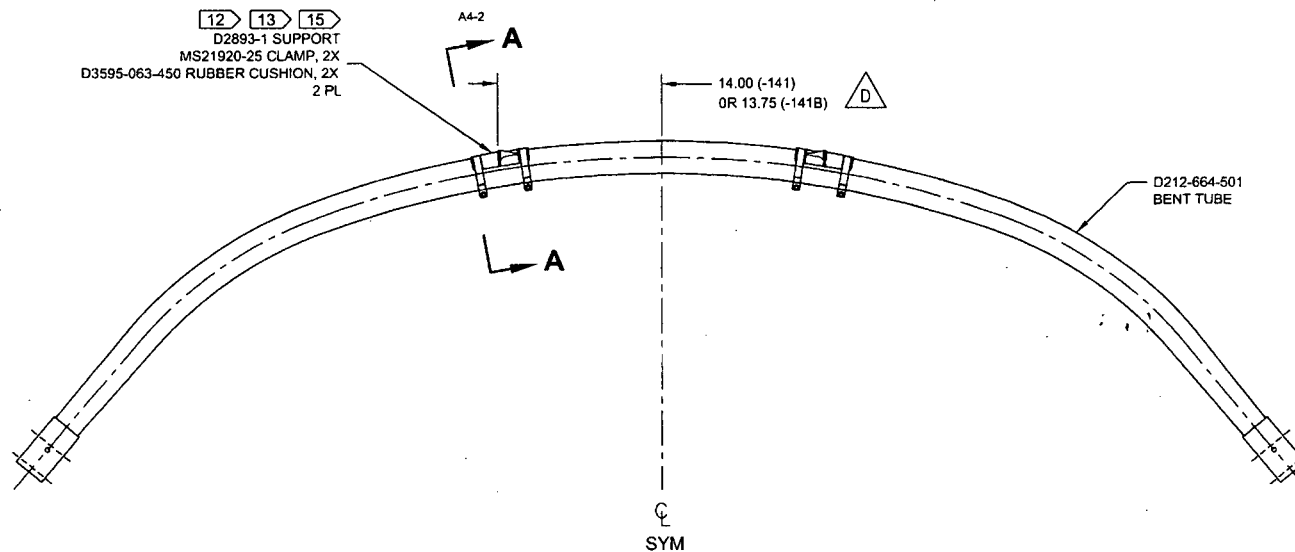
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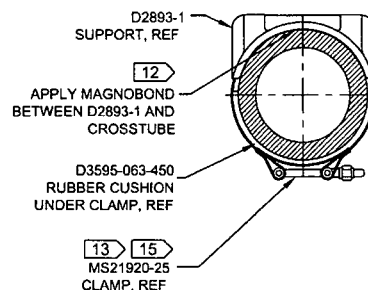
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**D212-664-141/-141B
ASSEMBLY DETAIL**



SECTION A-A D5-2
SCALE 4X

who 61075

RELEASED
2009-10-29
MD

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	90	DRAWING NO.	REV. D
MFG. APPR.	DS	D212-664-141	SHEET 2 OF 4
APPROVED	10	TITLE	SCALE
DE APPR.	14	XTUBE ASS'Y (205/212/412 HI FWD)	NTS
DATE	09.09.30	<small>COPYRIGHT © 2000 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

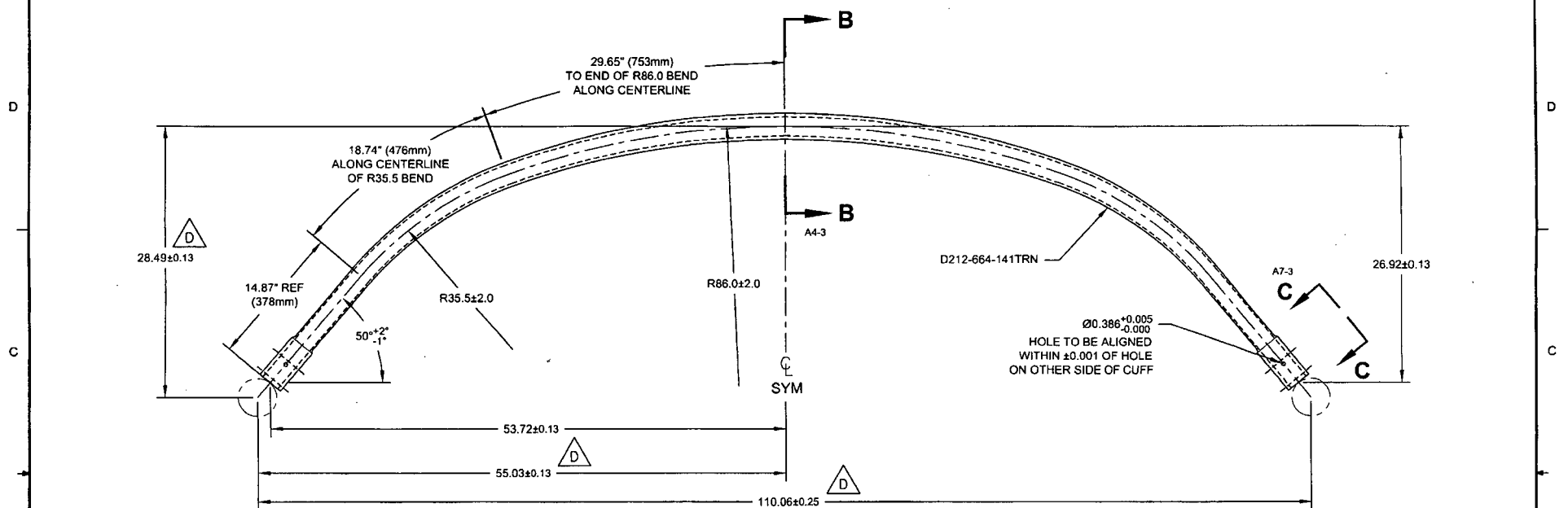
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

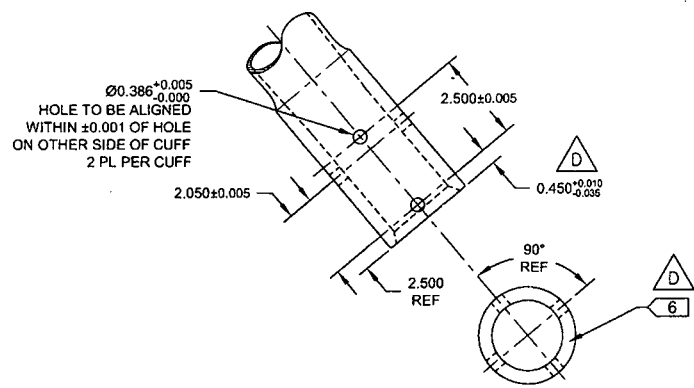
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

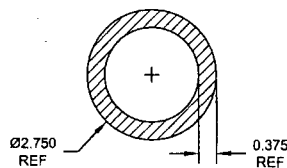
8 7 6 5 4 3 2 1



D212-664-501
BENDING AND DRILLING DETAIL



VIEW C-C: CUFF DETAIL
SCALE 3X



SECTION B-B
SCALE 4X

w/641075

RELEASED
2009-10-29

DESIGN	PH	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	JP	DRAWING NO.	REV. D
MFG. APPR.	JP	D212-664-141	SHEET 3 OF 4
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	XTUBE ASS'Y (205/212/412 HI FWD)	NTS
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8 7 6 5 4 3 2 1

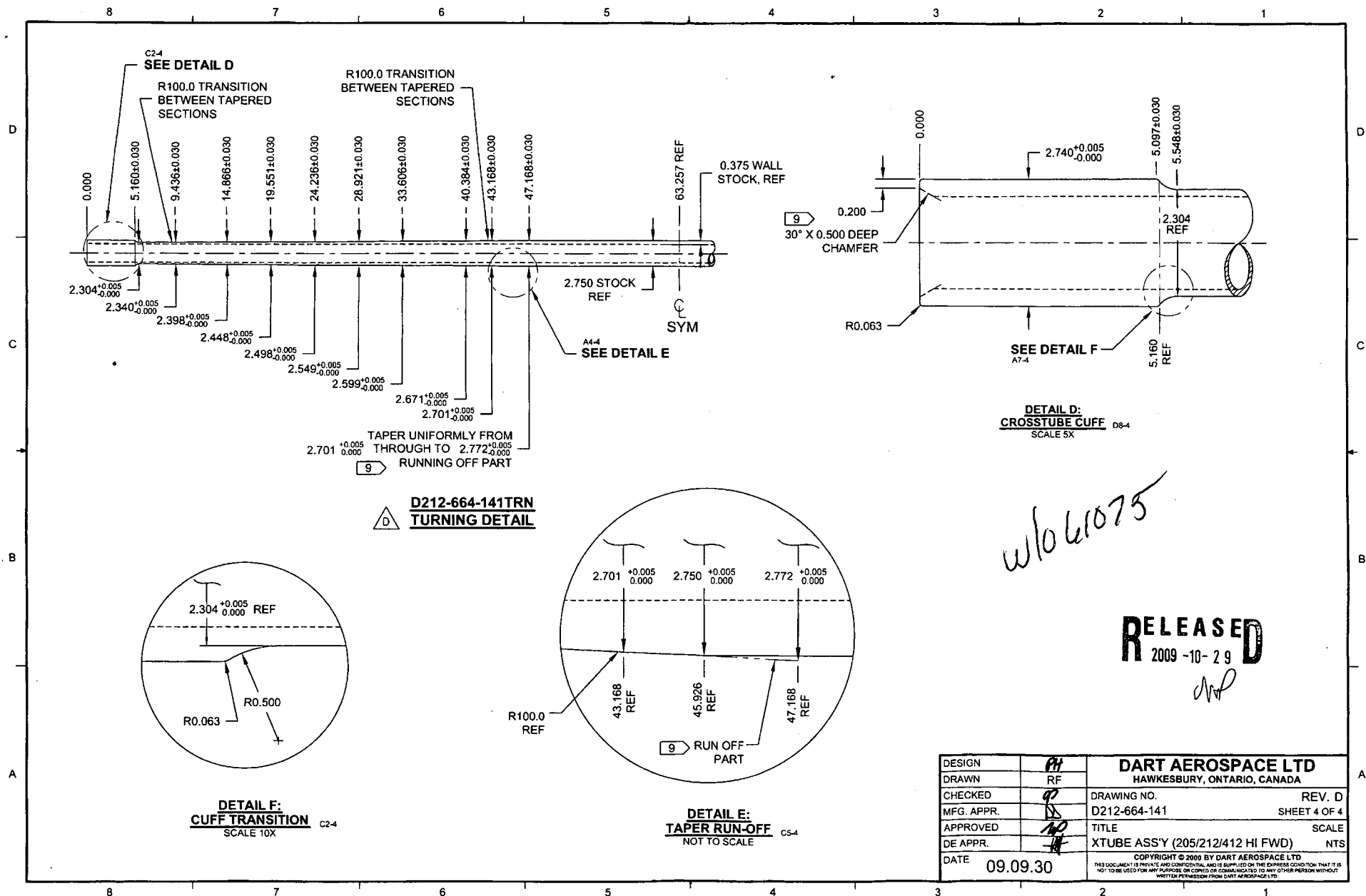
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



LIQUID PENETRANT TEST REPORT

P- 05489

CLIENT

ATTENTION

ADDRESS

PROJECT

ITEM(S) EXAMINED

DATE

ACUREN JOB NO.

PO/NO No.

WORK LOCATION

ACCEPTANCE STD.

PAGE

OF

TIME

AM

PM

DART AEROSPACE
LINDA LACELLE / CHANTINE / IAN
1270, ABERDEEN
HAWKESBURY ON

AUG 13/2010
138-10-0795

AS ADDRESS

ASTM 1417 / 431-038 REV./DATE 2005

W.F.P.T. ON 6 X CROSS TUBES

SEE W.O.# BELOW IN RESULTS

JOB DESCRIPTION

PROCEDURE NO. LT-002 REV./DATE 2008

TECHNIQUE NO. LT-002 REV./DATE 2008

PART NO.

MATERIAL ALUMINUM THICKNESS N/A

SCOPE

Performed a Wet Fluorescent Liquid Penetrant Inspection on 100% of
THE EXTERNAL SURFACE

TEST DETAILS

METHOD	<input checked="" type="checkbox"/> FLUORESCENT	<input type="checkbox"/> VISIBLE	<input checked="" type="checkbox"/> WATER WASH	<input type="checkbox"/> SOLVENT REMOVABLE	<input type="checkbox"/> POST EMULSIFIED
FAMILY BRAND	MAGNA FLUX		BLACK LIGHT S/N	13798	<input type="checkbox"/> OUTPUT > 1000 μ W/cm ²
PENETRANT	ZL-67	MINIMUM DWELL TIME	10	MIN.	<input type="checkbox"/> AMBIENT < 2 fc
PENETRANT REMOVER	H2O	MINIMUM DRY TIME	> 10	MIN.	<input type="checkbox"/> OUTPUT > 100 fc @ SURFACE
DEVELOPER	SKD-52	MINIMUM DWELL TIME	10	MIN.	OTHER
DEVELOPER TYPE	<input type="checkbox"/> NON AQUEOUS	<input type="checkbox"/> AQUEOUS	<input type="checkbox"/> DRY	LIGHT METER S/N	CAL DUE DATE 12/16/2010

TEST SURFACE

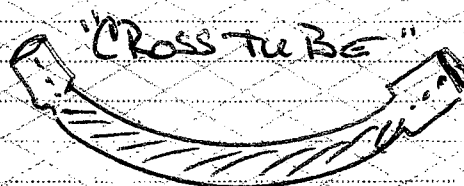
SURFACE CONDITION	<input type="checkbox"/> AS GROUND	<input type="checkbox"/> AS WELDED	<input type="checkbox"/> MACHINED	<input type="checkbox"/> SHOT BLASTED	<input checked="" type="checkbox"/> CLEAN BARE METAL
SURFACE TEMPERATURE	<input type="checkbox"/> < -4°C / 20°F	<input type="checkbox"/> -4°C / 20°F TO 10°C / 50°F	<input checked="" type="checkbox"/> 10°C / 50°F TO 52°C / 125°F	<input type="checkbox"/> > 52°C / 125°F	

RESULTS-

☐ METRIC ☒ IMPERIAL

ITEM	COMMENTS	ACCEPT	REJECT
#1	Wet Fluor L.P.I. on 100% EXTERNAL SURF.	✓	X
1	CROSS TUBE - W.O. ID 59887	✓	
2	CROSS TUBE - W.O. ID 59888	✓	
3	CROSS TUBE - W.O. ID 61074	✓	
4	CROSS TUBE - W.O. ID 61075	✓	
5	CROSS TUBE - W.O. ID 60258	✓	
6	CROSS TUBE - W.O. ID 60259	✓	

ITEM ID: - D407-667-205 (ITEM # 1/2)
ITEM ID: - D212-664-01 (ITEM # 3/4)
ITEM ID: - D212-664-107 (ITEM # 5/6)



BT 10-0616

Scope of Services

The agreement of Acuren Group Inc. to perform services extends only to those services provided for in writing. Under no circumstances shall such services extend beyond the performance of the requested services. It is expressly understood that all descriptions, comments and expressions of opinion reflect the opinions or observations of Acuren Group Inc. based on information and assumptions supplied by the owner/operator and are not intended nor can they be construed as representations or warranties. Acuren Group Inc. is not assuming any responsibilities of the owner/operator and the owner/operator retains complete responsibility for the engineering, manufacture, repair and use decisions as a result of the data or other information provided by Acuren Group Inc. In no event shall Acuren Group Inc.'s liability in respect of the services referred to herein exceed the amount paid for such services.

Standard of Care

In performing the services provided, Acuren Group Inc. uses the degree, care and skill ordinarily exercised under similar circumstances by others performing such services in the same or similar locality. No other warranty, expressed or implied, is made or intended by Acuren Group Inc.

SIGNATURES

CLIENT REPRESENTATIVE

TECHNICIAN (SIGNATURE):

NAME (PRINT):

Ron Titley
PRINT

Ron Titley
SIGNATURE

DTR # E48667

REPORT

REVIEWED BY:

NAME

INITIALS

1ST TECHNICIAN

CGSB LEVEL 2 SNT LEVEL 2

CGSB REG. NO. 344

2ND TECHNICIAN

CGSB LEVEL SNT LEVEL

CGSB REG. NO.

WHITE - CLIENT COPY

CANARY - OFFICE COPY

PINK - TECHNICIAN COPY

GOLD - OFFICE COPY

PT-9

5.0 PARTS LIST

5.1 HIGH GEAR CROSSTUBES

Item	-101	-201	-203	Part Number	Description
	X			D212-664-101	CROSSTUBE INSTALLATION, 204/205/210/212/214/412, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH FWD
		X		D212-664-201	CROSSTUBE INSTALLATION, 204/205/210/212/214, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH AFT
			X	D412-664-203	CROSSTUBE INSTALLATION, 412 HIGH AFT
1	1			D212-664-141	CROSSTUBE ASSEMBLY, 204/205/210/212/214/412, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH FWD
2		1		D212-664-241	CROSSTUBE ASSEMBLY, 204/205/210/212/214, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH AFT
3			1	D412-664-243	CROSSTUBE ASSEMBLY, 412 HIGH AFT
10	2			* D2893-1	SUPPORT
11	4			* D3595-063-450	RUBBER CUSHION
12	4			* MS21920-25	CLAMP (OR MS21042-26)
13	4			AN6-35A	BOLT
14	4			AN6-36A	BOLT
15	6			MS21042L6	NUT (OR MS21042-6)
16	18			AN960JD616	WASHER
20		2		* D2940-1	SUPPORT
21		4		* D3595-063-530	RUBBER CUSHION
22		4		* MS21920-28	CLAMP (OR MS21042-30)
23		4		AN6-40A	BOLT
24		2		AN6-41A	BOLT
25		6		MS21042L6	NUT (OR MS21042-6)
26		18		AN960JD616	WASHER
30			1	* D2896-1	SUPPORT
31			2	* D2856-600-1009	ABRASION STRIP
32			2	* D3595-063-570	RUBBER CUSHION
33			4	* MS21920-28	CLAMP
34			2	* MS21920-30	CLAMP (OR MS21042-32)
35			4	AN6-40A	BOLT
36			2	AN6-41A	BOLT
37			6	MS21042L6	NUT (OR MS21042-6)
38			18	AN960JD616	WASHER
39			2	* D3189-1	CHAFING SHIELD
50		1		D3428-1	PLACARD

*REFERENCE ONLY. PARTS ARE INCLUDED IN D212-664-141/-241 OR D412-664-243 ASSEMBLIES ABOVE
NOTE: KITS INCLUDE EXTRA HARDWARE FOR COMPATIBILITY WITH BOTH DART AND BELL/AA
SKIDTUBES.

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Revision: F
Date: 08.09.05